

OpenCable Platform Demonstration by Panasonic:

1. **3 different hardware platforms:** OCAP-Integrated Plasma HDTV, PCH2180 OCAP HD-DVR set-top box and PCH1000 OCAP reference platform.
2. **Write-once, Run-everywhere applications:**
 - Electronic Program Guide
 - OCAP educational game
 - OCAP T-commerce application
3. **OCAP application development tools:**
 - Hardware-based Application Development Kit (OCAP application test tool).
 - PC-based OCAP emulator (OCAP applications development tool).

Key Discussion Points:

1. **The OpenCable Platform (“OCAP”) is a platform for INNOVATION.** OCAP provides a national standardized platform for interactive television in cable systems enabling economies of scale for application development, and simplifies development & testing of products by providing a common set of application interfaces, data formats, and protocols.
2. **Panasonic plans to introduce OCAP-based interactive digital cable-ready retail products before the Feb. 17, 2009, DTV transition date.** Panasonic is testing prototype products with Comcast, Time Warner & Cox (65% of U.S. Cable subscribers) which are also deploying OCAP in their systems.
3. **Commission action is needed to ensure nationwide support for OCAP-based retail products.** NCTA draft regulation proposed to require OCAP support from large cable operators by **July 1, 2008** and ALL cable operators by **July 1, 2009**. CEA's proposed regulations supported similar requirements.
4. **A regulatory framework for “common reliance” based on OCAP will speed the benefits of digital television to cable consumers** because: (1) both the CEA and the NCTA proposals include support for OCAP; (2) OCAP is being deployed in cable systems today; and (3) OCAP is the only solution currently being deployed and supported by cable operators in their own devices.
5. **The Commission should not delay** making fully interactive OCAP-enabled digital cable ready products available to cable consumers by linking it to DCR-Plus or any other alternative approach.

Comparison of "Common Reliance" for OCAP and DCR-Plus

OpenCable Platform

Fully supported by cable, including regulatory framework.

Ready now. Initial specifications complete.

Delivers basic and advanced interactive services.

Provides a platform/environment for newer applications and services for Cable operators, content providers, and CE manufacturers.

Cable operators can customize and control their own business transactions (ordering PPV, VOD, etc.).

Developers can create new applications that are delivered with programming content.

Based on "Globally Executable MHP" ("GEM") – an international Java-based standard for interactive content delivery. Other GEM-based standards include:

- MHP – Multimedia Home Platform
- ATSC ACAP – Advanced Common Application Platform
- ARIB – Japan
- BD Java – Blu-ray Disc

Cable operators' major investment in OCAP substantially complete; freeing capital for investments in new technologies.

DCR-Plus

No support from any cable operator

Specifications incomplete. Will take time to define & test

Delivers basic services only: EPG, VOD and PPV.

Innovation contingent on industry negotiations, FCC rulemaking, and/or new standard.

CE manufacturer must develop 'one-size-fits-all' applications to handle every cable operators' business transactions.

Developer applications cannot be delivered with content.

Isolates the U.S. cable industry from sources of innovation and opportunities for international competition.

Does not support U.S. broadcast industry desire for interactive TV.

Would require new expenditures by Cable operators, taking capital away from the digital transition & broadband deployment.

September 27, 2007

Federal Communications Commission, Washington, DC

Panasonic ideas for life

presents

OCAP* = Two-Way Digital Cable-Ready

The cable industry's **OpenCable Applications Platform*** is now rolling out on cable systems nationwide, providing a **single, national platform** (OCAP 'middleware') for the fast and reliable deployment of two-way, interactive services—for use by individuals, homes, schools, businesses, government and others.

This extraordinary **write-once, play everywhere** system benefits:

- **Consumers**—Expanding choice in manufacturers and in products with competitive features and prices, which can be used anywhere (eliminates the 'local-only' set-top box), bought or leased
- **Applications developers**—Gaining greater opportunity to design and sell their applications to a 'national marketplace' (eliminates the need for system-by-system 'native' design and testing)
- **Program makers and advertisers and businesses**—Relying on uniform mechanisms for interactive features, e.g. polling, gaming, education, instruction, web-search, and t-commerce
- **Cable operators**—Launching more and competitive services, reducing costs by using common applications (with localized elements when desired), and rolling out new services faster
- **Broadcasters**—Gaining an embedded base of OCAP-enabled TVs whose underlying software is already harmonized for over-the-air, digital broadcast interactive services ('ACAP')

Panasonic has implemented and licensed its OCAP designs ('OCAP stack') to cable. Using **Panasonic** OCAP, consumers will enjoy two-way, fully **interactive digital cable-ready products**—from plasma HDTVs to compact cable set-top boxes and more. **Panasonic** has also developed **professional tools** to support OCAP applications design and cable operations deployment and testing—**all demonstrated here!**

1. **OCAP-integrated Plasma HDTV** (Two-way cable '**set-top inside**'—target: 2008 retail)
Full OCAP capability built into flat panel plasma HDTV... *NO* set-top box needed!
2. **HD-DVR digital cable set-top box (PCH2180 OCAP)** (Sold to Comcast—delivery: 4Q2007)
Multi-tuner HD-DVR with *one-remote* EZ Sync, CableCard interface, hi-speed DOCSIS system gateway
3. **OCAP Reference Platform (PCH1000)**
Helps cable operators confirm end-to-end OCAP compliance for *any* retail or leased OCAP product
4. **OCAP Applications Development Kit (ADK200)**
Set-top unit to help developers create and test their OCAP applications
5. **OCAP Applications Development Tool (OCAP PC Emulator)**
Computer implementation to help developers quickly create and test their OCAP applications

* OCAP specifications and licensing are managed by Cable Television Laboratories

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